BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of	)	
	)	
Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service	)	PR Docket No. 89-552 RM-8506
	)	
Implementation of Sections 3(n) and 332 of the Communications Act	)	GN Docket No. 93-252
	)	
Regulatory Treatment of Mobile Services	)	
	)	
Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 220-222 MHZ	)	PP Docket No. 93-253

To: The Commission

COMMENTS OF METRICOM, INC.

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Dated: September 27, 1995

SUMMARY

Metricom, Inc. is submitting these Comments in support of the Commission's proposals adopted in the Third Notice of Proposed Rulemaking relating to the use of the 220-222 MHz frequency band. Metricom believes that the Commission's proposals will serve to enhance the competitive potential of the 220 MHz band and encourage the development of new and competitive services in the public interest.

While Metricom generally endorses the Commission's proposals as set forth in the Third Notice, there are three modifications which Metricom believes should be made in order to better serve the public interest: (1) the Commission should not require a spectrum efficiency standard because a licensee should be permitted to use the spectrum in the manner best suited to the services it wishes to provide; (2) the Commission should eliminate the frequency stability standard to complement its relaxation of the emission mask requirements; and, (3) the Commission should modify its definition of the small business designated entity.

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To: The Commission

COMMENTS OF METRICOM, INC.

Metricom, Inc. ("Metricom"), through counsel, hereby submits these Comments in response to the Commission's Third Notice of Proposed Rulemaking (the "Third Notice") issued in the above-captioned proceeding.[1] Metricom applauds the Commission for adopting the proposals set forth in the Third Notice. The proposals, if implemented, will enhance the competitive potential of the 220 MHz services to be offered by eliminating unnecessary regulatory burdens, allowing more efficient use of the 220 MHz frequency spectrum, and making more services available to the public.

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[1] Third Notice of Proposed Rulemaking in PR Dkt. No. 89-552, GN Dkt. No. 93-252 & PP Dkt. No. 93-253, FCC 95-312 (rel. Aug. 28, 1995).

I. STATEMENT OF INTEREST.

Metricom is a young, rapidly growing, technologically innovative company based in Silicon Valley. Metricom has been a pioneer in the development of state-of the-art data communications systems, and it has invested significant sums of money, time and energy to successfully develop, manufacture and market its sophisticated, cost-effective systems. Metricom firmly believes that the Commission should allow technology and the marketplace, and not artificial regulatory barriers, to be the predominant forces in determining how and what kinds of services should be offered to the public in the 220 MHz band. Only minimal regulation is necessary in the 220 MHz band in order to limit harmful interference and require licensees to be good neighbors in the use of the band. Such regulation must allow maximum flexibility so that technological advances will be encouraged and can be employed without the need for regulatory change.

II. The Commission Should Remove The Present Restrictions on Fixed Systems And It Should Authorize Paging Operations in the 220 MHz Band.

Continuing the present restrictions on fixed communications and paging services in the 220 MHz band will interfere with the development and proliferation of new services. In the period since the first 220 MHz Report and Order, traditional mobile services have not flourished in the band the way the Commission had hoped. This is due to a variety of interrelated reasons including: (1) the requirement that narrow-band technology -- which is not widely in use -- be employed within a relatively small spectrum allocation;

(2) the emergence of competing, more flexible mobile services such as cellular, SMR and PCS services; (3) the lack of interest by many equipment manufacturers to develop equipment for use in the band; and (4) the reluctance on the part of investors to devote the necessary capital to construct limited mobile service networks in the band.[2/] These factors have led much of the 220 MHz spectrum to lie fallow. The Commission's proposal to lift the permissible use restrictions will induce development in the band and make more and better services available to the public.

The Commission's decision to auction the 220 MHz spectrum necessitates the adoption of rules which afford the winning entities some assurance that they can recoup their initial investment. The Commission should therefore, lift the present restrictions and allow the development of fixed, paging and a wide array of other services for which a perceived market exists, and for which competitive offerings can be made. Unless the Commission acts to afford licensees of the 220 MHz spectrum the ability to compete effectively and to offer new and innovative services in the public interest, the 220 MHz spectrum will continue to lie fallow.

[2/] See, e.g., Letter on behalf of Kingdon R. Hughes to Ralph Haller, Chief, Private Radio Bureau, September 23, 1994.

III. The Commission Should Permit the Aggregation of Contiguous Five kHz Channels within the 220 MHz Band.

A. The Aggregation Of Channels Should Be Authorized.

The aggregation of channels proposal is an excellent example of providing 220 MHz licensees with the ability to effectively compete and offer new and innovative services. As the Commission recognizes, restricting individual licensees' abilities to aggregate channels unnecessarily limits the amount and types of services that can be offered in the band.[3/] Ultimately, the ability to aggregate channels will afford 220 MHz licensees the ability to offer a wider array of communications services, to offer more competitive services and, therefore, to meet consumer demands.

The Commission should not, however, require licensees who choose to aggregate their channels to maintain a spectral efficiency at least equal to that obtained through the use of five kHz channels. The Commission should instead rely on the competitive bidding process and the marketplace to ensure that licensees utilize their spectrum in a technologically efficient manner. The characteristics of the band and the economics of the auction process will strongly encourage licensees to utilize their channels in a spectrally efficient manner. An arbitrary spectral efficiency parameter, as proposed by the Commission, will only hinder the ultimate development of the band.

B. The Commission Should Relax The Emission Mask Requirements For "Inside" Channels.

[3/] Third Notice at ¶ 81.

The Commission should adopt the proposal, related to the permissible aggregation of channels, to relax the emission mask for a licensees' "inside" channels while requiring adherence to the more stringent emission mask requirements only at the outer edges of the channels. Such action will assure that licensees can provide a wide array of new and innovative services while, at the same time, effectively share the spectrum with each other.[4]

C. The Commission Should Eliminate Frequency Stability Requirements For "Inside" Channels.

In addition to relaxing the emission mask requirements, and to complement that relaxation, the Commission should eliminate frequency stability requirements when channels are aggregated. These frequency stability standards which require a fairly stringent frequency stability for transmissions in the band, are unnecessary if the licensee is in conformance with the emission mask standards at the "outside" channels. Just as relaxing the emission mask requirements for aggregated "inside" channels would allow more innovative and diverse utilization of the frequency assignments, so too would elimination of frequency stability requirements because the imposition of the stability requirements will limit technological advances. Elimination of the frequency stability requirements will have no adverse impact on adjacent channel licensees so long as the emission mask requirements are met at the "outside" channels.

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[4] Third Notice at ¶ 84.

IV. The Commission Should Adopt Separate Construction Benchmarks For Fixed Operations In The Band.

The Commission is correct in recognizing that if it permits a wide variety of communications services in the band, the Commission will have to be more flexible in establishing construction benchmarks. Metricom supports the Commission's proposal to establish five and 10-year benchmarks based on the area or population-served criteria as described in the Third Notice[5] for traditional mobile-type services.

The Commission properly recognizes, however, that fixed services, unlike traditional mobile services, do not have the same coverage characteristics. Therefore the Commission is proposing a "substantial service to the public" standard as a construction benchmark, for fixed services.

A definition of "substantial service to the public" is extremely difficult to articulate because of the nature of fixed services. The Commission should adopt a subjective standard which considers the *potential* areas and population *capable* of being served by a fixed system, based on the equipment placed into service by the licensee. Conceptually, this is analogous to the way in which a cable system is considered to "pass" homes. The Commission must, however, carefully balance the licensee's obligation to serve the public with the type of operation the licensee desires to provide. It is important that licensees be

[5] Third Notice at ¶ 89.

permitted to design services in accordance with the perceived market, instead of on an arbitrary coverage area.

To achieve this objective, the Commission should freely consider waivers of any construction benchmarks it may establish for fixed systems in those instances where the applicant can reasonably justify that a waiver would be in the public interest.

V. The Commission Should Return the Pending Nationwide Applications Without Prejudice and Should then Auction the Phase II Nationwide Authorizations.

The Commission should make the remaining nationwide authorizations available at auction. The Commission has concluded that granting the licenses through an auction, as opposed to a lottery or a comparative hearing, will speed the development and deployment of nationwide licenses in the 220 service and will provide for more efficient use of the spectrum.[6] This is consistent with the Commission's stated goal of maximizing benefits to consumers.

Also, as a matter of equity, it would be grossly unfair to restrict the entities who may acquire a nationwide license to only those who applied in 1991, at a time when the Commission is simultaneously proposing to greatly expand the available uses of such authorizations. In May 1991, when the Commission first accepted applications for nationwide licenses in the band, only entities who planned to construct and operate a primary land mobile network were permitted to apply. Had the Commission permitted

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[6] Third Notice at ¶ 108.

fixed and other uses in 1991, a host of additional companies surely would have applied. To effectively disqualify operators of fixed, paging, and other non-mobile-type networks from bidding on the nationwide spectrum is tantamount to punishing such entities for not being clairvoyant.

VI. The Commission Should Permit Phase II Nationwide Licensees the Flexibility To Offer Commercial As Well As Non-Commercial Services.

As the Commission conceded, its earlier decision to set aside nationwide spectrum for non-commercial operations was strictly motivated by a desire to encourage the development of 5 kHz technology; it was not motivated by a desire to satisfy any perceived consumer demand for such use of the spectrum.[7] As the Commission further conceded, its goal of promoting advanced narrow band technology in the band has been achieved through the authorization of nearly 3,800 non-nationwide licenses.[8] The stated rationale for setting aside nationwide spectrum for non-commercial purposes has, therefore vanished. If the rationale underlying the non-commercial use restriction has vanished, and no other viable rationale exists, then the non-commercial restriction, which eliminates all commercial uses of the spectrum, cannot be supported and should be repealed.[9]

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[7] Third Notice at 34.

[8] Id.

[9] One of the Commission's underlying goals in embarking on this rulemaking is to reduce unnecessary regulatory burdens on 220 MHz licensees. Third Notice at ¶ 2.

Eliminating the non-commercial restriction would open the nationwide spectrum to a myriad of uses that will provide a wide variety of services to consumers [10]

VII. The Commission Should Reject The Proposal That Channels Presently Designated for Nationwide Non-Commercial Use Be Reallocated For Non-Nationwide Use and Should Maintain the Nationwide Character of the Remaining Nationwide Authorizations.

Americans are increasingly more mobile and they want radio transmission facilities to function wherever they are, with no noticeable difference in service -- a truly seamless system. Because nationwide services would be offered over a seamless network, businesses and individuals would be spared the difficulties involved with interconnecting several Regional or EA-based networks for service. The benefits to consumers of such seamless networks are obvious.

Reallocating the remaining nationwide channels for non-nationwide use would severely impair construction and operation of networks with such nationwide capabilities. Companies desiring to provide nationwide service would be forced to acquire either five regional licenses or well over 150 EA licenses, all in the same channel blocks. The likelihood of such an endeavor, as the Commission itself concedes, would be impractical or impossible.[11] Therefore, the Commission should maintain the nationwide character of the unassigned nationwide channels.

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[10] Id.

[11] Report and Order in PR Dkt. No. 89-552, 6 FCC Rcd. 2356, ¶ 34 (released April 17, 1991) (the "220 MHz Report and Order").

VIII. The Commission Should Adopt The Proposal to Assign the Remaining Nationwide Authorizations in Three 10-Channel Blocks, and Should Allow One Entity to Acquire Multiple Nationwide Licenses.

The original five and 10-channel block nationwide allocations were based on the projected needs of only land mobile networks.[12] Thus, the Commission's proposal to greatly expand the permitted uses in the band compels the Commission to reexamine its original allocation approach. Many of the new services which the Commission contemplates will require far greater bandwidth than a five-channel block. To accommodate these new services, the Commission should adopt its proposal to assign the remaining nationwide authorizations in three 10-channel blocks, and should allow one licensee to acquire multiple nationwide channel blocks.

Though the Commission raises the specter of reduced competition as a possible argument for maintaining the *status quo*,[13] this argument, as the Commission concludes, is only a specter. Nationwide licensees in the 220 MHz band will face substantial competition from cellular, PCS, SMR and other services. To assume otherwise is to ignore reality. No threat to competition will arise as a result of adopting the Commission's proposal to assign the remaining nationwide authorizations in these 10-channel blocks, and to allow one licensee to acquire multiple nationwide channel blocks.

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[12] Notice of Proposed Rulemaking in PR Dkt. No. 89-552, 4 FCC Rcd. 8593, ¶ 18 (released December 15, 1989) (the "NPRM").

[13] Third Notice ¶ 38

IX. The Commission Should Modify the Proposals for Small Business Designated Entities.

A. The Commission Should Adopt an Exception to its Proposed Small Business Attribution Rules for Publicly Traded Small Companies with Widely Dispersed Voting Power.

The Commission proposes to define a small business, for purposes of qualifying as a designated entity, as "an entity that, together with affiliates and attributable investors, has average gross revenues for the three preceding years of $15 million or less."[14] The Commission also proposes to aggregate the revenues and assets of affiliates and investors of the company in accordance with the narrowband PCS rules -- section 24.320(b)(2)(iv) of the Commission rules.[15] Under this provision, the net worth of all investors and the gross revenues of all affiliates in an entity will be included in tabulating the average gross revenues of the company unless, among other exceptions, the entity has a "control group" which owns 50.1 percent of the voting stock. As a practical matter, however, such a rule would render ineligible for "small business" status every small publicly traded corporation whose voting stock ownership is sufficiently dispersed so as to make it impracticable to identify such a "control group of shareholders." Such a rule would, therefore, preclude publicly-traded small companies from benefiting from the proposed designated entities rules because they happen to be publicly-traded and their stock is sufficiently dispersed so that management owns less than the 50.1

[14] Third Notice at ¶ 172 (emphasis added).

[15] Third Notice at ¶ 173.

percent required threshold. The Commission could not have intended such a result.

When the Commission was formulating its designated entity rules for broadband PCS and was confronted with the identical question, it chose to establish an exception for investors in, and affiliates of, publicly traded companies with widely dispersed voting powers.[16/] In adopting this exception, the Commission acknowledged that it is not the Commission's intent to discriminate against otherwise qualified small companies simply by virtue of their ownership structure: "a significant number of small, publicly traded companies have such widely dispersed voting stock ownership that no identifiable control group exists or can be created. Without a control group, such companies may not be able to bid for entrepreneurs' block licenses or qualify for small business status even though their gross revenues and assets meet our financial caps. <u>It was not the Commission's intent that these companies be denied the opportunity to bid on the entrepreneurs' block, or to qualify for treatment as a small business</u>."[17/]

The rules governing the broadband PCS entrepreneurs' qualifications provide that a small publicly traded company will be found to have dispersed voting power if no person or "group"[18/] of persons has (i) the power to control the election of more than 15

[16/] <u>Fifth Memorandum and Order in PP Dkt. No. 93-253</u>, FCC 94-285, ¶¶ 72-75 (released November 23, 1994).

[17/] <u>Id</u>. at 72 (emphasis added)

[18/] As this term is used in the Securities and Exchange Act of 1934. 15 U.S.C. 78(a) <u>et</u> <u>seq</u>.

percent of the corporation's directors, or (ii) more than 15 percent equity interest in the corporation.[19] In addition, for a corporation to qualify for this exception, no person other than the corporation's management and members of its board of directors may exercise de facto control over the corporation.[20] This proposal is consistent with the Commission's stated goal of preserving the control of license applicants by eligible entities, yet allowing for investment in such applicants by entities that do not meet the size restrictions in the Commission's rules.[21]

As in the broadband PCS context, there is simply no public policy justification for precluding small publicly traded companies from participating as designated entities in the 220 MHz auctions simply because such companies are publicly traded. Therefore, the Commission should follow its own precedent and not require a small corporation that has widely dispersed voting stock ownership to aggregate with its own revenues the revenues and assets of its shareholders for purposes of determining designated entity eligibility.

B. The Commission Should Increase the Average Gross Revenue Limit for Small Business Designated Entities Bidding on Nationwide and Regional Licenses to $25 Million.

The Commission proposes to define a small business, for purposes of qualifying as a designated entity to bid on nationwide

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[19] 47 C.F.R. § 24.720(m)

[20] Id.

[21] Fifth Report and Order, PP Dkt. No. 93-253, FCC 94-178, ¶ 205 (rel. July 15, 1994).

and regional licenses, as an entity that has average gross revenues of $15 million or less for the three preceding years.[22] This revenue threshold appears to be unreasonably low considering the costs associated with the design, build out and operation of a regional or nationwide system.

Bidders for nationwide and regional licenses must either possess or have access to financing sufficient to design and implement their systems. It appears that companies small enough to qualify for designated entity status under the proposed rule may not have access to the funds necessary for such an undertaking. Therefore, the restrictive definition proposed by the Commission may not yield the desired results. A limit of $25 million, however, would maximize the participation of licensees with the resources sufficient to construct and operate systems in the 220 MHz spectrum and at the same time, promote opportunities for small businesses. By any measure, a telecommunications company with revenues of $25 million or less that hopes to compete with the baby bells and other established cellular and data service providers is, indeed, small.

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[22] Third Notice at ¶ 172.

X. Conclusion

For all of the foregoing reasons, Metricom supports the Commission's proposals set forth in the Third Notice, and urges the Commission to expeditiously adopt those proposals, as modified by suggestions contained in these Comments.

Respectfully submitted,

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